

**REMARKS/ARGUMENTS**

Claims 8-33 remain in this application. Claims 1-7 have been canceled.

In the outstanding official action, Figure 1 was objected to for failing to designate a legend such as "Prior Art". Applicants have submitted herewith a replacement sheet containing Figure 1 with the legend "Prior Art". Applicants respectfully request that this objection be withdrawn.

In the outstanding official action, Figure 5 was objected to for containing minor errors. In support of the objection the Examiner set forth the following:

According to the claimed invention, there is a minor problem in this Figure. Engine 3 transmits its result to engine 2, engine 2 generates its own result and comparison is made to select the best match from the two generated results. The inventive entity recites, "In an alternative embodiment, if a later lookup engine has a better match than an earlier lookup engine, the later lookup engine payload, match quality, and tag are validated and used. Lookup engine 2 also transmits to lookup engine 1 a search done signal." Further discloses, "If lookup engine 1 did not have a better match, it would have used lookup engine 2's payload, match quality, and tag." (See Specification Page 10, Lines 8-12 and 20-22). According to the claimed invention, the stack of lookup engines pass the best match from top lookup engine to the bottom lookup engine. According to the drawing, the result of engine 2 is better in terms of quality (longest matching prefix). Therefore, since the result of lookup engine 2 is better (longer prefix), engine 2 should pass the payload 2, tag 2 to lookup engine number 1.

Applicants respectfully traverse this objection. In particular the Examiner sets forth that "the result of look up engine 2 is better (longer prefix)" than the result of look up engine 3 and should therefore pass the result of payload 2, tag 2 to lookup engine number 1. As presently claimed and described it is the "match quality" that is used to determine what is passed on from one lookup engine to the next. There is described 3 match qualities, an exact match (match type "01"), a partial match (match type "10"), and no match (match type "00"). In reference to Figure 5, lookup engine 3 produced a partial match, with a match quality of "10", and lookup engine 2 produced a partial match, thereby also with a match quality of "10". Lookup engine 2 compares the match quality of both lookup engines and determines that they are of equal precedence.

Lookup engine 2 then validates and transmits the payload, match quality data, and tag received from lookup engine 3 to lookup engine 1. As described, if a later lookup engine has a better match quality than an earlier lookup engine, the later lookup engine payload, match quality, and tag are validated and used (see page 9 line 16 through page 10, line 12). Applicants therefore assert that Figure 5 is correct, and respectfully request that this objection be withdrawn.

In the present office action, claim 1 was rejected under 35 USC 102, and claims 1-7 were rejected under 35 USC 103 in view of various references. Applicants have canceled herein claims 1-7 and therefore respectfully request that these rejections be withdrawn.

It is believed that the foregoing places the Application in condition for allowance; therefore, Applicant respectfully requests withdrawal of the Examiner's objections and rejections as set forth in the Office Action, and full allowance of same. Should the Examiner have any further comments or suggestions, it is respectfully requested that the Examiner contact the undersigned to expeditiously resolve any outstanding issues.

Respectfully submitted,

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**In the Drawings:**

Submitted herewith is a replacement sheet containing a replacement for Figure 1.